Claims:

1. (Currently amended) A method of communicating information between cards of a network element in addition to data traffic being forwarded between the cards, the method comprising:

transmitting a first out-of-band signal containing ~~the~~ information from a first card in the network element to a second card in the network element over a link, ~~dedicated to~~ the link carrying the first out-of-band signal[~~s~~] between the first card and the second card by a different path from a path used to forward data traffic between the first and second cards; and

receiving, by the second card in the network element, out-of-band signals from a plurality of other cards in the network element;

incorporating, by the second card in the network element, information extracted from the out-of-band signals received from the plurality of other cards in the network element into a second out-of-band signal;

~~simultaneously~~ transmitting the [~~a~~] second out-of-band signal from the second card in the network element to the first card in the network element over the link ~~containing the information received by the second card to a plurality of cards in the network element~~.

2. (Original) The method of claim 1, wherein the first and second out-of-band signals are transmitted at a frame rate used for synchronous data transmission of optical signals.

3. (Canceled)

4. (Currently amended) The method of claim 1, further comprising simultaneously transmitting, by the second card in the network element,

the second out-of-band signal to the plurality of other cards, receiving the second out-of-band signal at ~~one~~ each card of the plurality of other cards, and determining, by each card of the plurality of other cards, which portion of the information in the second-out-of-band signal to process.

5. (Currently amended) The method of claim 1, further comprising detecting by the first card an opening of a latch precedent to ~~removing~~ the first card being removed from the network element, incorporating, by the first card, an indicator of the opening of the latch in the first out-of-band signal, and ~~including~~ incorporating, by the second card, the indicator in the second out-of-band signal.

6. (Currently amended) The method of claim 1, wherein the information contained in the first out-of-band signal is status information.

7. (Original) The method of claim 6, wherein the status information is at least one of a path status, a line status, a latch-open status, and a master-slave status.

8. (Currently amended) The method of claim 1, wherein the information contained in the first out-of-band signal is one of a line protection request, a line protection acknowledgment, and a K byte.

9. (Original) The method of claim 1, wherein each out-of-band signal is a frame having a plurality of timeslots for each carrying a packet.

10. (Original) The method of claim 9, further comprising assigning particular data types to particular timeslots of the frame.

11. (Currently amended) A method of communicating information between cards of a network element in addition to data traffic being forwarded between the cards, the method comprising:

receiving an incoming data signal having payload at a first card in a network element from over a network;

obtaining information from the incoming data signal;

forwarding the ~~incoming data signal~~ payload to ~~the~~ a second card in the network element at a frame rate used for synchronous data transmission of optical signals; ~~and~~

transmitting at the frame rate ~~an~~ first out-of-band signal containing ~~the extracted~~ information from the first card to [a] the second card over a bidirectional link, the bidirectional link carrying the first out-of-band signal between the first and second cards by a different path from a path taken by the forwarded payload~~ at the frame rate~~; and

transmitting at the frame rate a second out-of-band signal over the bidirectional link from the second card to the first card, the second out-of-band signal containing information extracted from out-of-band signals received by the second card from a plurality of other cards in the network element.

12. (Currently amended) The method of claim 11, wherein the information contained in the first out-of-band signal is one of a line protection request, a line protection acknowledgment, and a K-byte.

13. (Currently amended) The method of claim 11, wherein ~~the~~ each out-of-band signal is a frame having a plurality of timeslots for each carrying a packet.

14. (Original) The method of claim 13, further comprising assigning particular data types to particular timeslots of the frame.

15. (Original) The method of claim 13, wherein the frame rate is 8000 frames per second.

16. (Original) The method of claim 11, wherein the first card is a tributary card and the second card is a cross-connect card.

17. (Canceled)

18. (Currently amended) The method of claim 11, further comprising:

~~aggregating information received by the second card in out-of-band signals transmitted from a plurality of cards~~

extracting from the first out-of-band signal, by the second card, the information contained in the first out-of-band signal, and incorporating the information extracted from the first out-of-band signal into the second out-of-band signal;

wherein transmitting the second out-of-band signal over the bidirectional link from the second card to the first card includes simultaneously transmitting the second out-of-band signal from the second card to each card of the plurality of other cards in the network element.

19. (Canceled)

20. (Currently amended) A network element, comprising:

a backplane;

a plurality of cards connected to the backplane, the plurality of cards including a tributary card and a cross-connect card;

a first link on the backplane for carrying ~~forwarding~~ data traffic between the tributary and cross-connect cards in the network element; and

a second link on the backplane, different from the first link, ~~the link being dedicated to~~ for carrying out-of-band signals between the tributary card and the cross-connect card by a different path from a path used to carry the data traffic between the tributary and cross-connect cards, the tributary card transmitting information to the cross-connect card in a first out-of-band signal over the second link and the cross-connect card ~~broadcasting the~~ transmitting information ~~to the plurality of~~ extracted from out-of-band signal received from other cards in the network element to the first card in a second out-of-band signal over the second link.

21. (New) The method of claim 1, further comprising extracting, by the second card, the information contained in the first out-of-band signal, and incorporating the information extracted from the first out-of-band signal into the second out-of-band signal; and

wherein transmitting the second out-of-band signal over the link from the second card in the network element to the first card in the network element includes simultaneously transmitting the second out-of-band signal to the plurality of other cards in the network element.

22. (New) The method of claim 11, wherein transmitting the first out-of-band signal and transmitting the second out-of-band signal over the bidirectional link occur concurrently during a given frame interval.

23. (New) The network element of claim 20, wherein the cross-connect card extracts the information in the first out-of-band signal, incorporates the

information extracted from the first out-of-band signal into the second out-of-band signal, and simultaneously transmits the second out-of-band signal to the plurality of other cards in the network element.